

**CLAIMS**

1. A steel cord adapted for the reinforcement of elastomers, said steel cord comprising :
  - 5 - a core steel filament having a core steel filament diameter  $d_c$  and being coated with a polymer ;
  - six intermediate steel filaments having an intermediate steel filament diameter  $d_i$  smaller than or equal to said core steel filament diameter  $d_c$ , said intermediate steel filaments being
    - 10 twisted around said core steel filament ;
    - ten or eleven outer steel filaments having an outer steel filament diameter  $d_o$  smaller than or equal to said intermediate steel filament diameter  $d_i$ , said outer steel filaments being twisted around said intermediate steel filaments, said outer steel
      - 15 filaments being preformed in order to allow rubber penetration inside said cord ;
      - said core steel filament, said intermediate steel filaments and said outer steel filaments all having a tensile strength of at least 2600 MPa,
      - 20 said cord having an outer diameter D according to following formula :
 
$$D \leq d_c + 2xd_i + 2xd_o + 0.1$$
 wherein all diameters are expressed in millimeter (mm).
- 25 2. A steel cord according to claim 1 wherein all diameters  $d_c$ ,  $d_i$  and  $d_o$  range from 0.15 mm to 0.40 mm.
3. A steel cord according to any one of the preceding claims, wherein said outer steel filaments are polygonally preformed.
- 30 4. A steel cord according to any one of the preceding claims wherein said cord has a breaking load of at least 3250 Newton.
5. A steel cord according to any one of the preceding claims, said
  - 35 intermediate steel filaments being twisted with an intermediate

-10-

twisting step, said outer steel filaments being twisted with an outer twisting step, said intermediate twisting step being different from said outer twisting step.

- 5           6. A steel cord according to any one of the preceding claims, said intermediate steel filaments being twisted in an intermediate twist direction, said outer steel filaments being twisted in an outer twist direction, said intermediate twist direction being equal to said
- 10           outer twist direction.